CITY OF SAN ANTONIO
OFFICE OF INNOVATION

SMARTSA

SmartSA Smart Streetlight Program

About the Initiative

The SmartSA Smart Streetlight program pilots remote lighting controls, and five environmental sensor use-cases on up to 40 streetlights in each of the three Innovation Zones: Downtown, Brooks and the Medical Center for a total of up to 120 streetlights. The goal of the program is to evaluate smart streetlights for their cost effectiveness, feasibility, and benefit to the public. If the streetlight pilot is successful, CPS-Energy and the City of San Antonio will determine the possibility of scaling the solutions city-wide.

Smart streetlights incorporate energy saving LED lights, remote controls, and can optionally support sensor applications. SmartSA and City of San Antonio stakeholders identified five priority smart streetlight technologies to test during the pilot, including air quality sensing, temperature sensing, ambient noise detection, parking sensing and flood sensing.

Background

In 2017, the San Antonio City Council established three "Innovation Zones" where new technologies and solutions to community challenges can be tested. In alignment with the Urban Lighting Master Plan (ULMP) and the Innovation Zone Survey conducted in Fall 2018, the Office of Innovation worked with four City Departments, and SmartSA Partners San Antonio River Authority and CPS-Energy to identify and prioritize smart streetlight technology use cases. The proposed use cases were assessed according to technical, feasibility, and financial criteria, as well as how well each use case addressed the community priorities identified by the Innovation Zone Survey. The use cases that emerged from this prioritization workshop were: Ambient Noise, Flood Sensing, Temperature Sensing, Parking Sensing, and Air Quality sensing.

Subsequently, CPS-Energy led a procurement effort resulting the selection of Itron and AT&T for the pilot program. Itron and AT&T have each installed up to 20 smart streetlight solutions in each of the three Innovation Zones (Downtown, Brooks, and the Medical Center), for a total of up to 60 streetlights per vendor.

Potential Benefits

Studies have shown, when combined with LED lighting, remote lighting controls on smart streetlights can create up to 60% savings on a City's utility bill. Smart streetlight applications can create new data sets such as air quality and temperature data that can inform the public, spark new research and innovation, and support City Departments in streamlining services, developing policy, and reaching Climate Action & Adaptation Plan goals.

- LED lights & Smart Streetlight Controls can render cost savings to City of San Antonio energy bill
- Smart Streetlight Controls can render time savings, and maintenance cost savings
- Parking efficiency benefits due to real-time parking availability data
- New data sets such as air quality and temperature data that support City Departments in streamlining services, developing policy, and reaching Climate Action & Adaptation Plan goals

Stakeholders

- Brooks Planning Authority
- San Antonio River Authority
- CPS-Energy
- Office of Sustainability
- Center City Development & Operations Department (CCDO)
- San Antonio Police Department (SAPD)
- San Antonio Metropolitan Health District (SAMHD)
- Office of Innovation
- Information & Technology Services Department (ITSD)
- Centro

Approach

The pilot phase will run for six months starting April 19th and ending in Fall 2021. Each Innovation Zone deployment will be evaluated by SmartSA Partners, CPS Energy and the City of San Antonio during the pilot phase. Lessons learned from the three pilots will inform a possible future citywide deployment of the smart streetlights after the pilot period ends. Please see the attached streetlight locations selected for the pilot.

Sensors attached to the streetlights collect data for each use case. The data will be gathered by CPS-Energy and the City of San Antonio and shared with participating City Departments. Data determined to be non-sensitive by City Staff from the streetlight sensors will be made publicly accessible during the pilot phase using the City's Open Data Platform, data.sanantonio.gov.

Future Growth

Pending the evaluation of the pilot program's success, a city-wide deployment of smart streetlight applications may be feasible.

Budget

The pilot program is conducted at no cost to CPS-Energy or the City of San Antonio. Budgetary requirements will be evaluated pending the success of the pilot, and the decision to move forward with a city-wide strategy.

Milestones

- February 2021 - Installation complete
- March 2021 – Sensor Calibration
- April 2021 – Pilot Evaluation Period Kick-Off
- Fall 2021 – Pilot Evaluation Period Closes

Get Involved

A SmartSA Sandbox (public workshop) will be held to engage the community on the sensor data during the pilot phase of the program. Check back to https://www.sanantonio.gov/SmartSA/Projects for information on upcoming events and activities.

Contact

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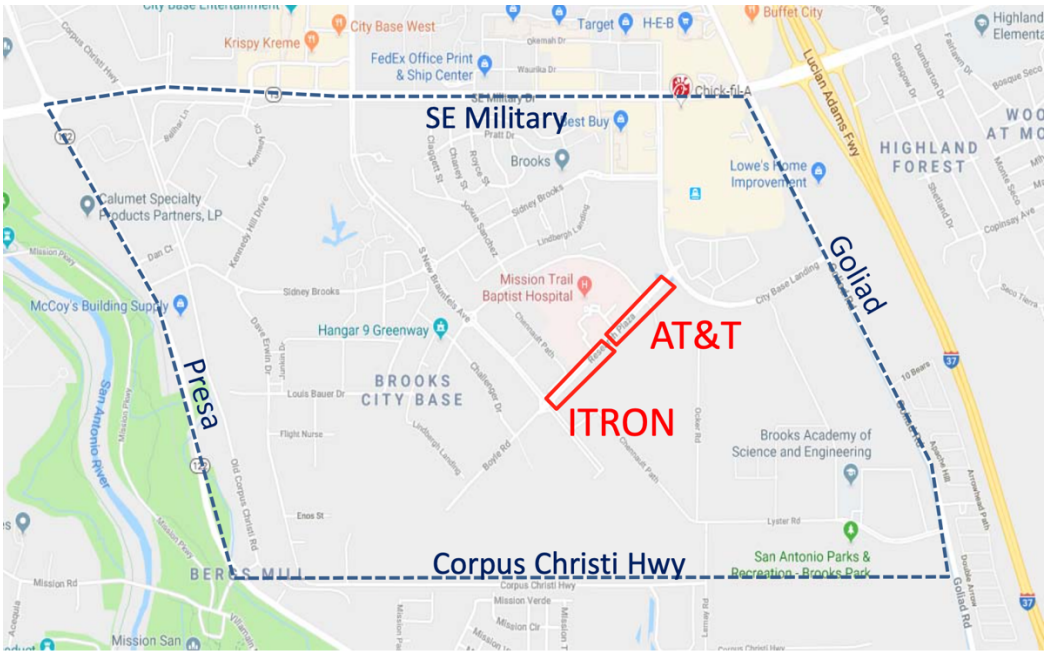
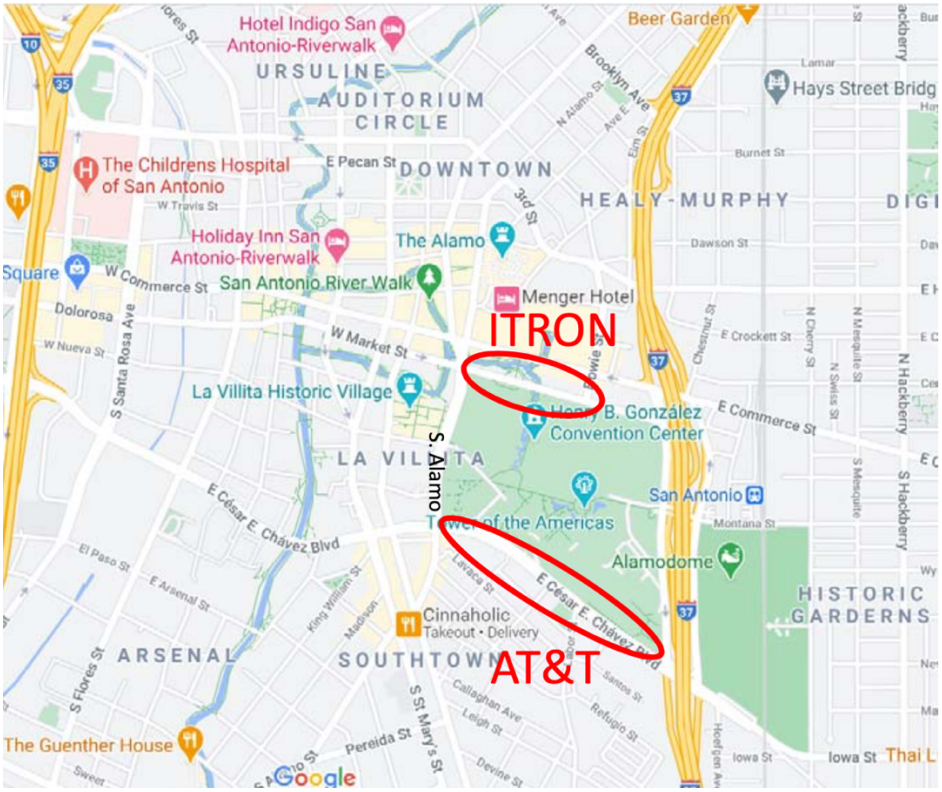
Website: Office of Innovation

Brooks Innovation Zone



Downtown Innovation Zone



Medical Center Innovation Zone